

Listing of Claims

1. (Previously Presented) A computer, comprising:  
a housing having an access opening;  
a removable access door for tool-less placement in front of the access opening in order to prevent passage through the access opening;  
a quick release latching mechanism configured to facilitate the mount and release of the access door to and from the housing, the quick release latching mechanism including a quick release handle that is pivotally coupled to the housing, the rotation of the handle causing the removable access door to be mounted and released to and from the housing.
2. (Original) The computer as recited in claim 1 wherein the removable access door is secured to the housing without using fasteners.
3. (Previously Presented) The computer as recited in claim 1 wherein the quick release latching mechanism includes a housing side locking mechanism and a door side locking mechanism that are cooperatively positioned so that when the removable access door is placed in front of the access opening, the locking mechanisms are capable of lockably engaging with each other thus securing the removable access door to the housing, the locking mechanisms engaging and disengaging one another via the rotation of the quick release handle.
4. (Original) The computer as recited in claim 1 wherein the quick release latching mechanism includes a plurality of retention hooks located on the housing that mate with a plurality of hook receivers located on the removable access door, the retention hooks being configured to engage the hook receivers in order to hold the removable access door in front of the opening.
5. (Previously Presented) The computer as recited in claim 4 wherein the retention hooks are movable between an engagement position, coupling the retention hooks with the hook receivers, and a disengagement position, decoupling the retention hooks from the hook receivers, the removable access door being secured to the housing when the retention hooks and hook

receivers are engaged, the removable access door being released from the housing when the retention hooks and hook receivers are disengaged, the retention hooks moving between the engagement and disengagement position via the rotation of the quick release handle.

6-27. (Cancelled)

28. (Previously Presented) The computer as recited in claim 5 wherein the retention hooks are positioned on a slider bar that slides relative to the housing, and wherein the sliding action of the slider bar is provided by the rotation of the quick release handle.

29. (Previously Presented) The computer as recited in claim 28 further comprising a mechanism for transforming the rotary motion of the quick release handle into linear motion of the slider bar.

30. (Previously Presented) The computer as recited in claim 5 wherein the hook receivers include a ramp that causes the access door to move towards the housing as the retention hooks are moved into the hook receivers, and that causes the access door to move away from the housing as the retention hooks are moved out of the hook receivers.

31. (Previously Presented) The computer as recited in claim 5 wherein the retention hooks are flanges that protrude away from the housing and the hook receivers are slots built into the access door, the slots being configured to receive the flanges therein.

32. (Previously Presented) The computer as recited in claim 5 wherein the retention hooks are positioned within the access opening, and wherein the hook receivers are positioned on an inner surface of the access door.

33. (Previously Presented) The computer as recited in claim 1 wherein the quick release handle is seated inside a pocket in the housing when the access door is mounted to the housing and wherein the quick release handle protrudes away from the pocket when the access door is released from the housing, the outer surface of the quick release handle lying flush with the outer surface of the housing when seated inside the pocket.

34. (Previously Presented) The computer as recited in claim 33 further comprising a lock receiver configured to receive a padlock so as to prevent the use of the quick release handle, the lock receiver including a first extension and a second extension, each of which is configured for insertion into an opening in the quick release handle, the lock receiver pivoting within the pocket between a first position, placing the first extension within the opening in the quick release handle, and a second position, placing the second extension within the opening in the quick release handle, the second extension extending past the outer surface of the quick release handle when the second extension is placed within the opening in the quick release handle, the second extension including a hole for receiving the padlock thereby preventing a user from rotating the quick release handle.

35. (Previously Presented) A computer, comprising:

- a housing having an access opening;
- a removable access door for covering the access opening, the removable access door not having any movable parts thereon;
- a latching system including a housing side locking feature and a door side locking feature that when engaged secure the removable access door to the housing and that when disengaged allow the release of the removable access door from the housing; and
- a quick release handle positioned at the housing and configured to facilitate the engagement and disengagement of the locking features via a pivoting action, the quick release handle pivoting between an open position where the locking features are forced into disengagement thereby releasing the access door from the housing, and a closed position where the locking features are forced into lockable engagement thereby securing the access door to the housing.

36. (Previously Presented) The computer as recited in claim 35 wherein the housing side locking feature includes a plurality of flanges that slide side to side relative to the housing and within the access opening, and wherein the door side locking feature includes a plurality of interior slots that are built into the inner surface of the access door, the flanges being configured for insertion into the interior slots when the access door is positioned in front of the access opening, the flanges sliding into an engaged position and capturing the inner surface of the removable access door when the quick release handle is moved to the closed position, the flanges sliding into a disengaged position and releasing the inner surface of the removable access door when the quick release handle is moved to the open position.

37. (Previously Presented) The computer as recited in claim 36 further comprising a mechanism for transforming the pivoting action of the handle to the sliding motion of the flanges.

38. (Previously Presented) The computer as recited in claim 36 further comprising a stiffener that is attached to an inner surface of the planar access door, the stiffener being configured for insertion into a recess within the access opening when the access door covers the access opening.

39. (Previously Presented) The computer as recited in claim 38 wherein the access door and housing are formed from metal, and wherein an EMI gasket is positioned around the outer perimeter of the stiffener, the EMI gasket shielding interference at the interface between the housing and the access door.

40. (Previously Presented) A computer, comprising:  
a housing having an access opening and a continuous recess at the edge of the access opening;  
a removable access door for tool-less placement in front of the access opening in order to prevent passage through the access opening, the removable access door including a plurality of hook receivers positioned on an inner surface of the access door, and a continuous retention lip for insertion into the recess of the housing, the engagement of the retention lip and the recess allowing the removable access door to be rotated into the access opening;  
a quick release latching mechanism for securing the access door to the housing and for releasing the access door from the housing, the quick release latching mechanism comprising,  
a slider assembly having a slider bar that is slidably retained to the housing, and a plurality of retention hooks that are attached to the slider bar and located within the access opening, each of the retention hooks including a flange that is configured to capture corresponding hook receivers of the access door when the slider bar is slid into an engaged position, and to release corresponding hook receivers of the access door when the slider bar is slid into a disengaged position;  
a handle that is pivotally coupled to the housing;  
a motion transform assembly for transforming the rotary motion of the handle to the sliding motion of the slider bar, the rotation of the handle in a first direction causing the slider bar to move from the disengaged position to the engaged position, the rotation of the handle in a

second direction causing the slider bar to move from the engaged position to the disengaged position.

41. (Withdrawn) The computer as recited in claim 40 further comprising:  
a quick release removable fan module that slides in and out of an interior portion of the housing, the fan module making tool-less electrical and mechanical connections with the computer when the fan module is slid into the housing, the fan module making tool-less electrical and mechanical disconnections with the computer when the fan module is slid out of the housing
42. (Withdrawn) The computer as recited in claim 40 further comprising:  
a drive configured for tool-less placement inside an interior portion of the housing; and  
a second quick release latching mechanism configured to facilitate the mounting and release of the disk drive to and from the housing.
43. (Withdrawn) The computer as recited in claim 40 further comprising:  
a disk drive disposed inside said housing adjacent a drive opening in the housing;  
a drive door that slides internally and linearly up and down relative to the housing between an opened position where the drive door is placed away from the opening in order to allow access through the opening and a closed position where the drive door is placed in front of the opening in order to prevent access through the opening.
44. (Previously Presented) A computer, comprising:  
a housing including a top wall, bottom wall, front wall, back wall, first side wall and a second side wall, the first side wall having an access opening, a cut out portion within the access opening, and a recess disposed at the bottom of the access opening, the back wall having a pocket formed therein;  
an access frame configured to support the housing in the area of the access opening, the access frame including a support bar that extends across the access opening between the front and back walls;  
a slider bar that is slidably retained to the support bar of the access frame, the slider bar including a plurality of retention hooks that translate in and out under a spring bias, each of the retention hooks including a flange;

a handle pivotally coupled to the back wall of the housing, the handle pivoting in and out of the pocket of the back wall between an open and closed position, the handle lying flush with the back wall when in the closed position and extending out of the pocket when in the open position;

a motion transform assembly for transforming the rotary motion of the handle to the sliding motion of the slider bar, the rotation of the handle from the open to closed position causing the slider bar to move from a disengaged position to the engaged position, the rotation of the handle from the closed to open position causing the slider bar to move from the engaged position to the disengaged position;

a removable access door for placement in front of the access opening, the removable access door cooperating with the housing to enclose the operational components of the computer, the removable access door having an inner surface and an outer surface, the removable access door including a lip at its bottom edge for insertion into the recess of the housing, the engagement of the retention lip and the recess allowing the removable access door to be rotated in front of the access opening, the outer surface of the removable access door being substantially flush with the outer surface of the first side wall when positioned in front of the access opening;

a stiffener attached to the inner surface of the removable access door, and configured for placement in the cut out portion of the first wall when the removable access door is rotated in front of the access opening, the stiffener including a cross bar that is cooperatively positioned relative to the support bar of the access frame;

an EMI gasket attached to an outer perimeter of the stiffener and configured to seal the interface between the stiffener and the cut out portion of the first side wall;

a plurality of hook receivers disposed in the cross bar of the stiffener, the hook receivers being configured to receive corresponding flanges of the slider bar, each flange being configured to capture its corresponding hook receiver when the slider bar is slid into an engaged position, and to release its corresponding hook receiver when the slider bar is slid into a disengaged position, the interface between the hook receivers and flanges being configured to draw the removable access door towards the support bar when the slider bar is slid into an engaged position.

45. (New) The computer as recited in claim 1 wherein the removable access door includes interior and exterior surfaces, the interior surface having a flat edge portion and a raised portion inside the flat edge portion.

46. (New) The computer as recited in claim 45 wherein the housing includes a first recessed portion and a second recessed portion about the access opening, the first recessed portion receiving the flat edge portion of the removable access door, the second recessed portion receiving the raised portion of the removable access door, the first recessed portion placing the exterior surface of the removable access door in its desired position relative to an exterior surface of the housing around the access opening, the second recessed portion cooperating with the raised portion of the removable access door to seal the access opening.

47. (New) The computer as recited in claim 45 wherein the removable access door comprises a planar panel with inner and outer surfaces that are flat from edge to edge of the planar panel, and a stiffening member attached to the inner surface of the planar panel, the placement of the stiffening member forming the flat edge portion and raised portion of the removable access door.

48. (New) The computer as recited in claim 1 wherein the housing includes a door recess underneath the access opening and the access door includes a retention lip at its bottom edge, the door recess receiving the retention lip in order to help secure the door to the housing and coarsely position the access door relative to the housing, the housing further including one or more locator holes and the access door further including one or more alignment pins that help finely position the access door relative to the housing.

49. (New) The computer as recited in claim 1 further comprising:

a horizontal cross bar on the backside of the removable access door, the cross bar defining a space for placing a plurality of hook receivers, the hook receivers being positioned at passages in the cross bar, and trapped between the cross bar and the back surface of the removable access door, each of the hook receivers forming a void;

a horizontal support bar that extends across the access opening between the right and left sides of the access opening; and

a horizontal slider bar that is slidably retained to the support bar, the slider bar including a plurality of retention hooks that mate with a plurality of hook receivers, each of the retention hooks including a flange that is slid into the void of a corresponding hook receiver to form an interlocking connection, the sliding action of the slider bar being provided by the rotation of the quick release handle.

50. (New) The computer as recited in claim 49 wherein the hook receivers include a tapered portion that causes the removable access door to move towards the housing as the retention hooks are slid into the hook receivers.

51. (New) The computer as recited in claim 49 wherein the retention hooks are attached to the slider bar under a spring bias in order to control the movement of the removable access door towards the housing.

52. (New) The computer as recited in claim 35 further comprising a support bar that extends across the access opening, and wherein the door side locking feature of the latching system includes slotted portions on the backside of the access door, the housing side locking feature of the latching mechanism includes a slider assembly disposed within the access opening, the slider assembly having a slider bar that is slidably retained to the support bar and a plurality of spring biased retention hooks that slidably retained to and move in a direction transverse to the slider bar, the retention hooks including flanges that are parallel to the slider bar, the flanges being configured to capture slotted portions of the access door when the slider bar is slid, the sliding action of the slider bar being provided by the rotation of the quick release handle.

53. (New) The computer as recited in claim 52 wherein the slider bar is retained to the support bar via shoulder bolts, wherein the retention hooks are slidably retained to the slider bar with fins that slide within a groove on the slider bar, and wherein the retention hooks are spring biased via a leaf spring.

54. (New) The computer as recited in claim 52 wherein the handle includes a pivot arm that is slidably and pivotally coupled to an end of the slider bar.

55. (New) The computer as recited in claim 54 wherein the pivot arm is coupled to an end of the slider bar through a pivot pin that is received within a groove of the slider bar, the profile of the groove being configured to transform the rotary motion of the handle to the sliding motion of the slider bar.

56. (New) The computer as recited in claim 35 wherein the removable access door includes a planar panel with flat surfaces extending end to end, the planar panel and housing being formed from aluminum.

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